

Curriculum Vitae

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Brief Bio

I have a PhD in Nuclear Physics from Aarhus University, Denmark. Between 2010 and 2018 I was a frequent visitor at large international accelerator laboratories such as CERN in Switzerland where I led a number successful experimental collaborations, which have advanced our understanding of the nuclear processes that generate energy and transmute chemical elements in the interiors of stars. Eager to put my knowledge and analytical skills to use in a more applied setting, I joined the MERIDIAN project in 2018. Based at the Institute for Big Data Analytics at Dalhousie University, Canada, I am now leading a small team of data scientists and software developers in creating novel data analytics and modeling tools for use in underwater acoustics.

Employment History

- 2019–Present: Adjunct Professor at Faculty of Computer Science, Dalhousie University
Co-supervision of undergraduate and graduate students
- 2018–Present: Lead Acoustic Data Analyst at Institute for Big Data Analytics, Dalhousie University
Development of analytical tools, interdisciplinary collaboration, software development, project management, supervision of junior staff and students, workshop organization, grant application writing
- 2015–2018: Assistant Professor at Department of Physics and Astronomy, Aarhus University
Research collaboration lead, project management, writing of research articles, research proposals, and grant applications, data analysis, laboratory work, technology development, teaching, student supervision, public outreach, academic duties
- 2013–2015: Postdoc at Department of Physics and Astronomy, Aarhus University
Writing of research articles, research proposals, and grant applications, data analysis, laboratory work, teaching, student supervision, public outreach
- 2010–2013: Postdoc at TRIUMF
Writing of research articles, research proposals, and grant applications, data analysis, laboratory work

University Education

- 2006–2010: PhD Physics, Aarhus University
- 2005–2006: Fulbright student, University of Washington
- 2002–2005: BSc Physics and Mathematics, Aarhus University

Research Projects (P.I.)¹

- 2015-2018: “Nuclear astrophysics at the precision frontier”, The Villum Foundation Young Investigator Programme, 580k
- 2010-2012: “Experiments in nuclear astrophysics with radioactive beams at the ISAC-II facility at TRIUMF”, The Villum Foundation Postdoc Fellowship, 190k

¹Grant size in CAD

Grants and Awards

2019: NVIDIA Accelerated Data Science GPU Grant, 3k
2005: The Danish-American Fulbright Commission, 17k
2005: Nordea Danmark-fonden, 4.0k
2005: Faculty of Science, Aarhus University, 1.9k
2005: Etatsråd CG Filtenborg og Hustru Marie Filtenborgs Studielegat, 1.0k
2005: Observator mag.scient Julie Marie Vinter Hansens Rejselegat, 1.0k
2002: International Physics Olympiad Honorable Mention

Publications

34 peer-reviewed research articles (10 first authorships), 23 conference proceedings, and 3 feature articles. 465 citations (373 without self citations), h -index of 12, and 8.16 citations per item.² For a complete list, see my ORCID profile at orcid.org/0000-0001-5843-7465.

Talks

Numerous (> 50) presentations at international conferences and workshops including several invited talks. For a complete list, see oliskir.github.io.

Software

2019: *ketos*, docs.meridian.cs.dal.ca/ketos/, F. Frazao and O. S. Kirsebom
2018: *simX*, [10.5281/zenodo.1320121](https://doi.org/10.5281/zenodo.1320121), M. Munch and J. H. Jensen and O. S. Kirsebom
2018: *Open R-matrix (ORM)*, [10.5281/zenodo.1174079](https://doi.org/10.5281/zenodo.1174079), M. Munch and O. S. Kirsebom and J. Refsgaard

Spokespersonships³

2015–2018: *Search for the 2nd-forbidden ground-state transition in the β decay of ^{20}F* , JYFL
2015–2018: *Absolute measurement of the $\beta\alpha$ decay of ^{16}N* , ISOLDE
2012–2015: *β -delayed α -decay study of ^{16}N using the implantation method*, KVI
2011–2015: *Lifetime Measurement of the 7.786 MeV State in ^{23}Mg* , TRIUMF

Teaching

2013–2017: Extracurricular programme for 1st-year students, Coordinator
2015: Nuclear astrophysics graduate course, Lecturer
2014: Electromagnetism laboratory course, Coordinator
2006–2010: Physics and mathematics undergraduate courses, Teaching Assistant

Student Supervision

2019–2020: Xuhui Liu, MSc Computer Science, Dalhousie University (co-supervisor)
2016–2017: Helle Bisgaard Sørensen, MSc Physics, Aarhus University
2014–2015: Sofie Tilbæk Nielsen, BSc Physics, Aarhus University

²Source: Web of Science, 2019.11.03.

³Experiments at major international nuclear physics accelerator laboratories.

Conference and Workshop Organization

21-22 Nov 2019: Organizer of the workshop “**Detection and Classification in Marine Bioacoustics with Deep Learning**” with approx. 30 participants from Canada, the U.S. and Europe.

Academic Services

2016–2018: Member of the Liaison Committee at the Department of Physics and Astronomy, Aarhus University

Refereeing

Methods in Ecology and Evolution, Physics Review Letters, Physical Review C, Hyperfine Interactions.

Professional Memberships

2018–Present: Member of the Canadian Acoustical Association

2013–2018: Member of the Danish Physical Society